



**Titan Directional Services, Inc.**

20302 Park Row Suite 1200  
Katy, TX 77449

**Shull 6-25-9-60**

**Scale 2":100' - MD**

**1/10/2015 12:03 PM**

**Oper. Company:** Carrizo Oil & Gas, Inc.

**Well:** Shull 6-25-9-60

**Field:** Niobrara CONZ83

**Rig:** Xtreme 19

**Well ID:** 05-123-40494-0

**Job Number:** TL14020

**State:** Colorado

**County:** Weld

**Country:** USA

**Location:** Keota

**Start Date:** 01/03/2015 20:00:00

**End Date:** 01/10/2015 04:00:00

**Latitude:** 40.7146861111111

**Longitude:** -104.035997222222

**Elev KB:** 17'

**Elev DF:** 4904'

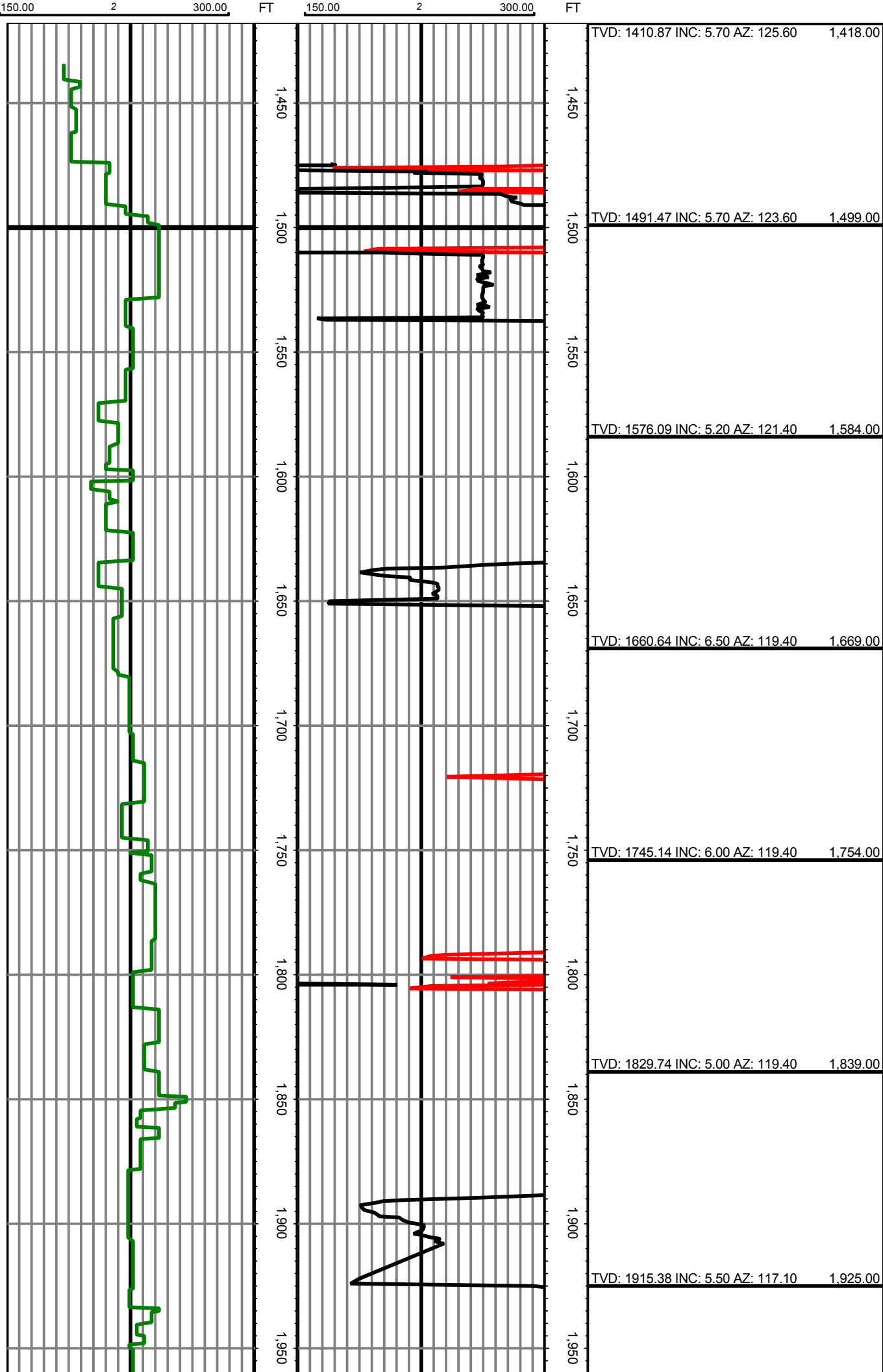
**Elev GL:** 4887'

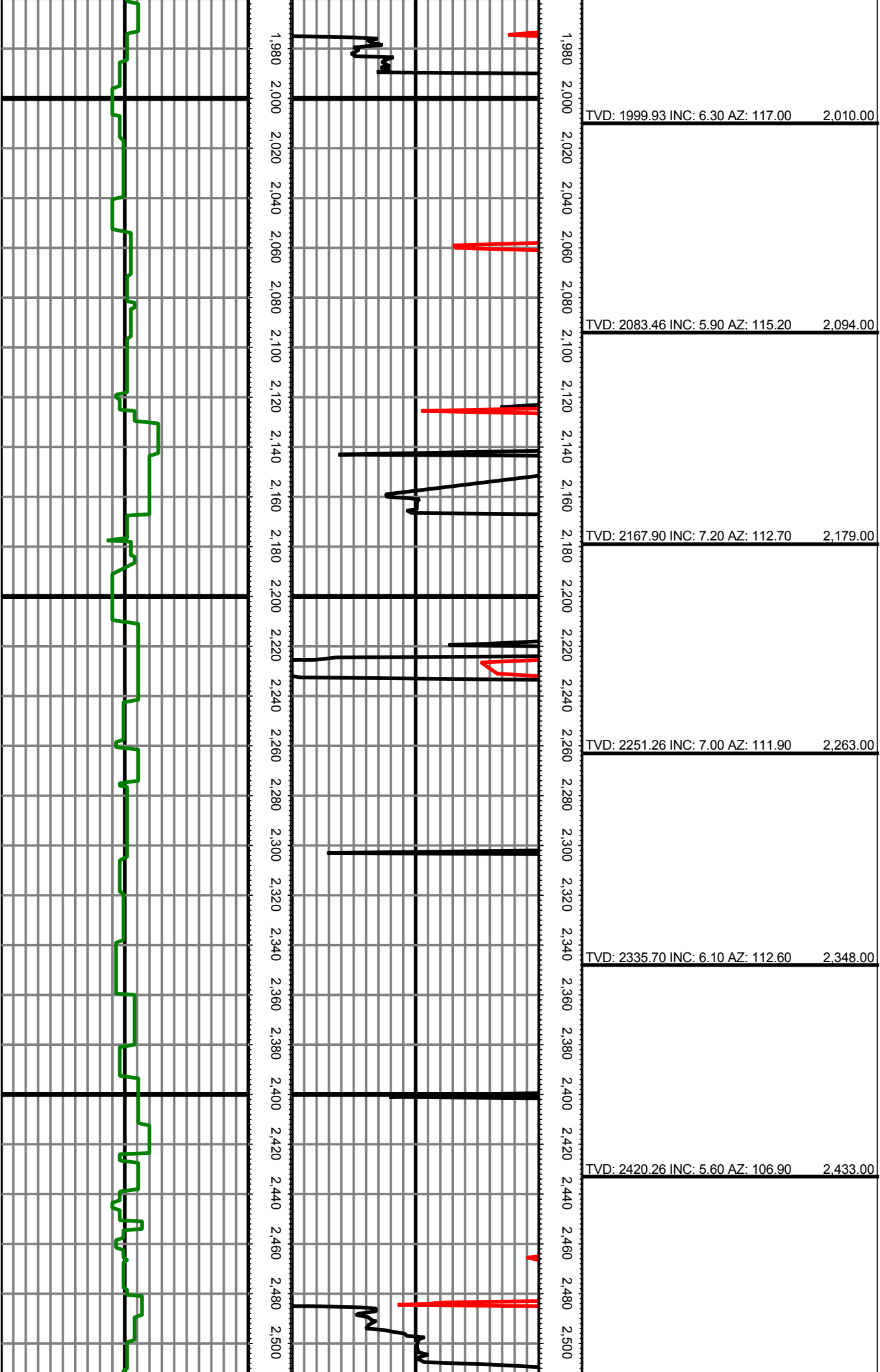
**Operator 1:** Paul Brown

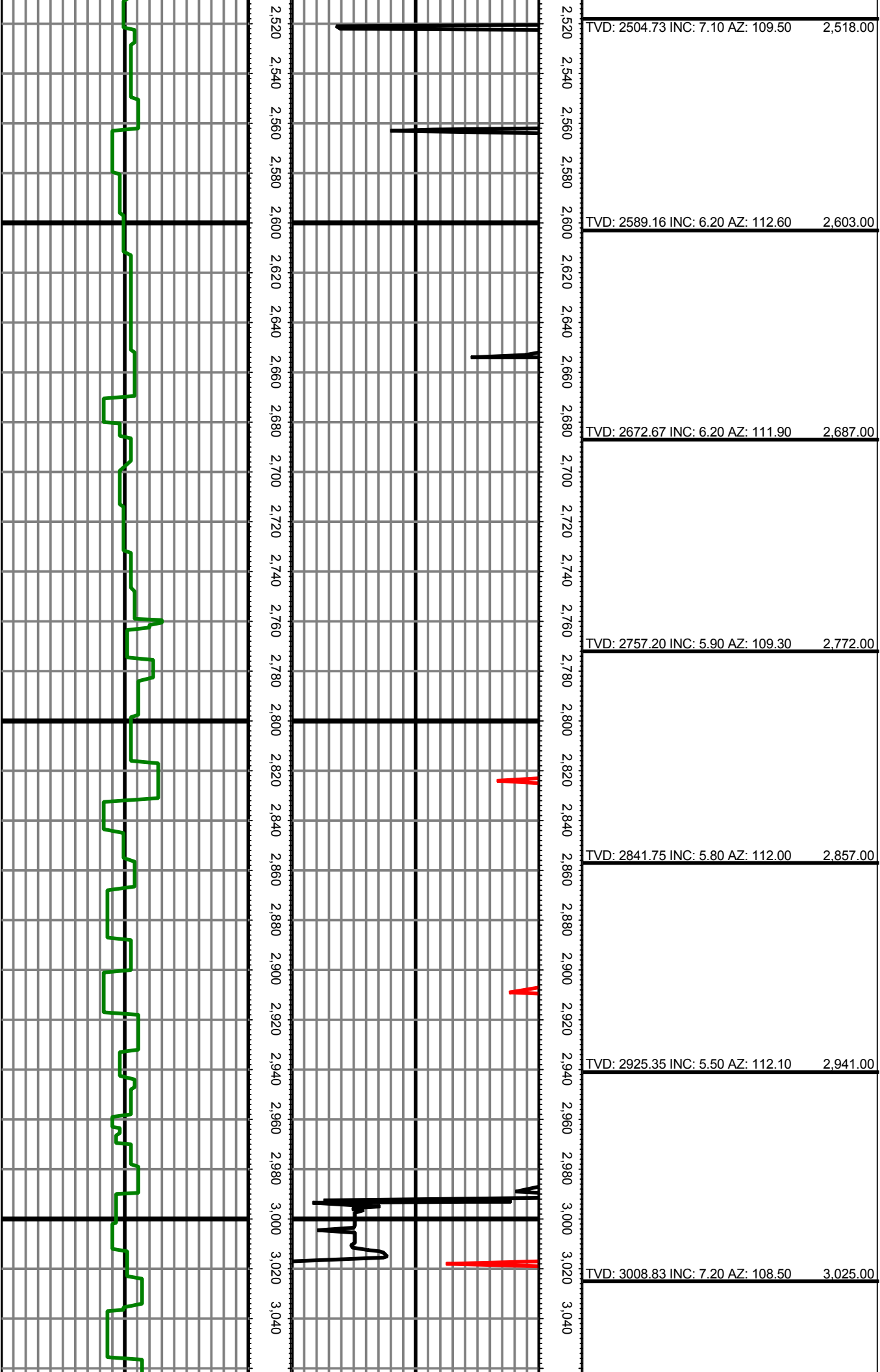
**Operator 2:** Trevor Cecchetti

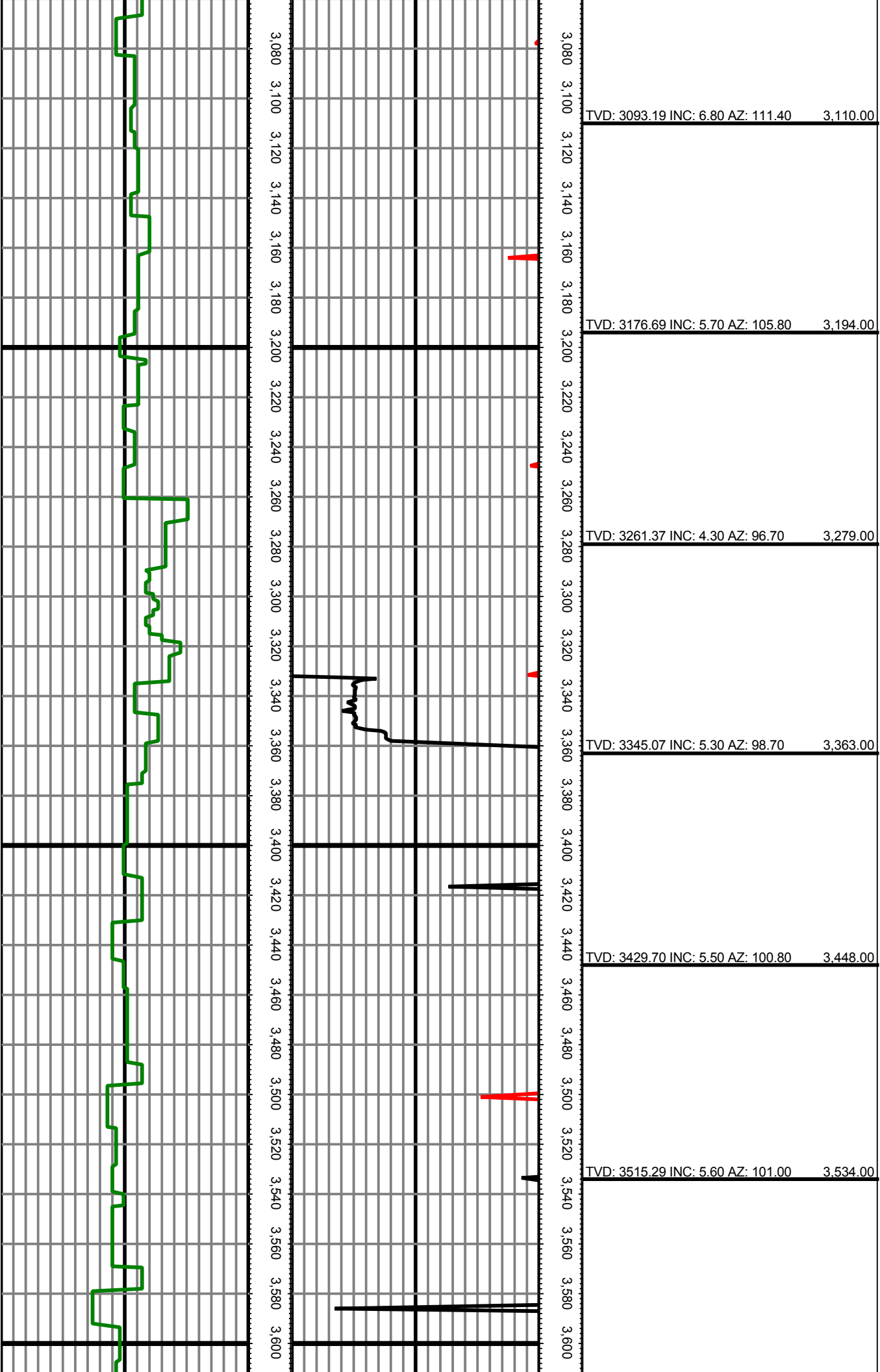
| Tool Run Data       | Run #1    | Run #2    | Run #3      | Run #4 | Run #5   |
|---------------------|-----------|-----------|-------------|--------|----------|
| Tool S/N            | 6182      | 6182      | 6182        |        |          |
| Bit Size            | 8 3/4     | 8 3/4     | 6 1/8       |        |          |
| Cal Factor          | 4.63      | 4.66      | 2.14        |        |          |
| Survey Offset:      | 49.00     | 49.00     | 50.00       |        |          |
| Gamma Offset        | 40.00     | 40.00     | 41.00       |        |          |
| Resistivity Offset  | 0.00      | 0.00      | 0.00        |        |          |
| Start Depth         | 1474.00   | 5495.00   | 6348.00     |        |          |
| StartDate           | 1/3/2015  | 1/5/2015  | 1/7/2015    |        |          |
| StartTime           | 17:30     | 03:30     | 09:15       |        |          |
| EndDepth            | 5495.00   | 6348.00   | 10676.00    |        |          |
| EndDate             | 1/4/2015  | 1/6/2015  | 1/10/2015   |        |          |
| EndTime             | 01:30     | 08:45     | 04:00       |        |          |
| Mud Type            | WBM       | WBM       | WBM         |        |          |
| Mud Weight          | 8.4 - 9.1 | 9.3 - 9.5 | 9.5 - 9.8   |        |          |
| Funnel Viscosity    | 29 - 31   | 39 - 42   | 42 - 45     |        |          |
| Plastic Viscosity   | N/A       | 7 - 9     | 13 - 15     |        |          |
| Yield Point         | N/A       | 8         | 10 - 11     |        |          |
| Gel Strength        | N/A       | 2 / 23    | 3 / 18      |        |          |
| Solids Content      | 3 - 4     | 6 - 7.5   | 7 - 7.4     |        |          |
| Sand Content        | TRACE     | 1.5       | 0.25        |        |          |
| Mud Alkalinity      | 1.4       | 0.8 - 1.5 | 0.5 - 0.6   |        |          |
| Filtrate Alkalinity | 0.6 - 1.2 | 0.7 - 1.8 | 0.3 - 1.1   |        |          |
| Chlorides           | 300       | 400       | 500         |        |          |
| Mud RM              | N/A       | N/A       | N/A         |        |          |
| Mud RMF             | N/A       | N/A       | N/A         |        |          |
| Mud RMC             | N/A       | N/A       | N/A         |        |          |
| Mud RM at BHT       | N/A       | N/A       | N/A         |        |          |
| Temperature         | 125       | 125 - 145 | 145 - 183   |        |          |
| Hole Data           |           |           | Casing Data |        |          |
| Size                | From      | To        | Size        | From   | To       |
| 12 1/4              | 0.00      | 1474.00   | 9 5/8       | 0.00   | 1454.00  |
| 8 3/4               | 1474.00   | 6348.00   | 7           | 0.00   | 6329.00  |
| 6 1/8               | 6348.00   | 10676.00  | 4.5         | 0.00   | 10676.00 |

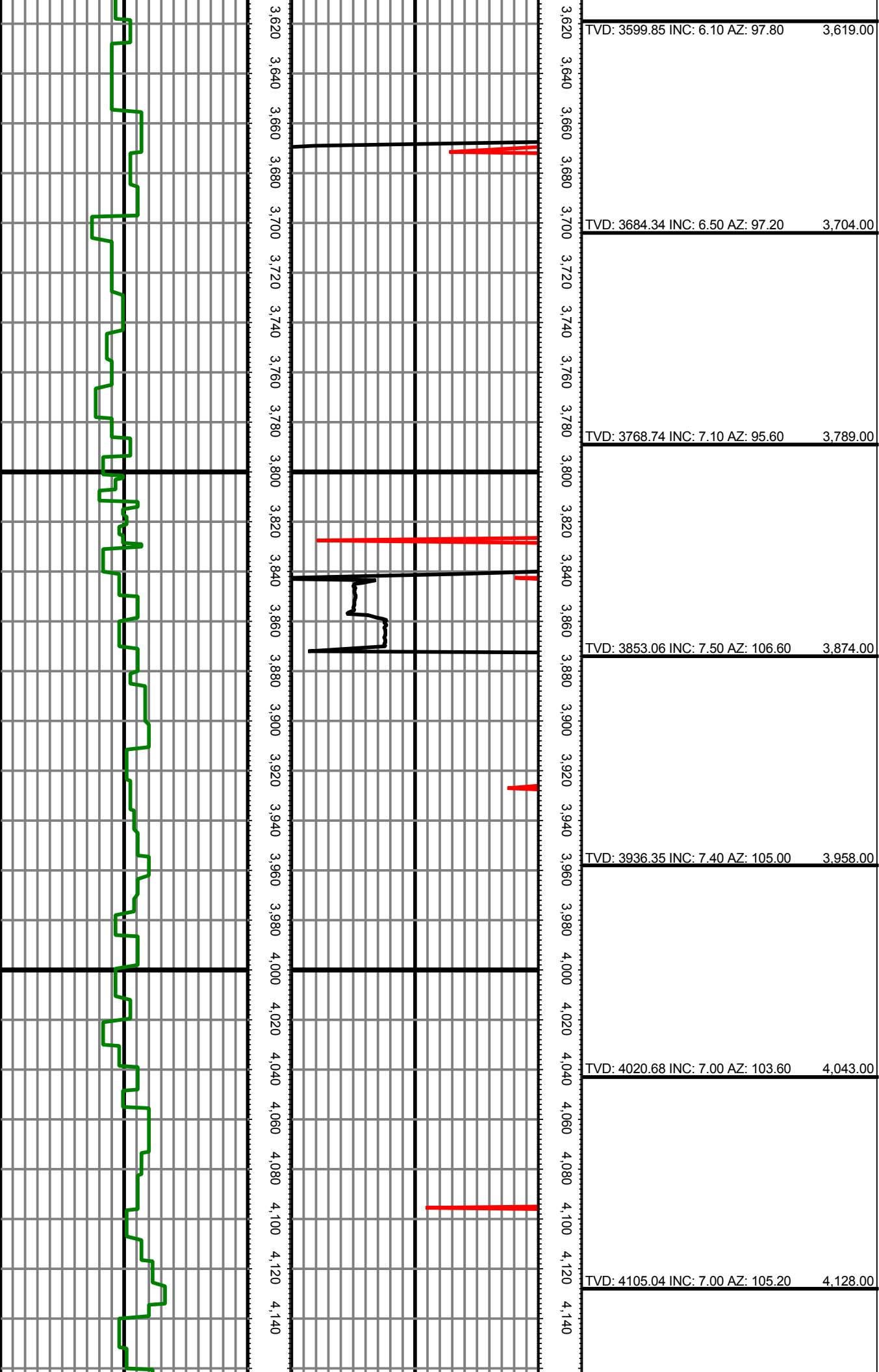
*All interpretations are opinions based on inferences from electrical or other measurements and we cannot and do not guarantee the accuracy or correctness of any interpretation, and we shall not except in the case of gross or willful negligence on our part, be liable or responsible for any loss, cost damages or expenses incurred or sustained by anyone resulting from interpretation made by any of our officers, agents, or employees.*

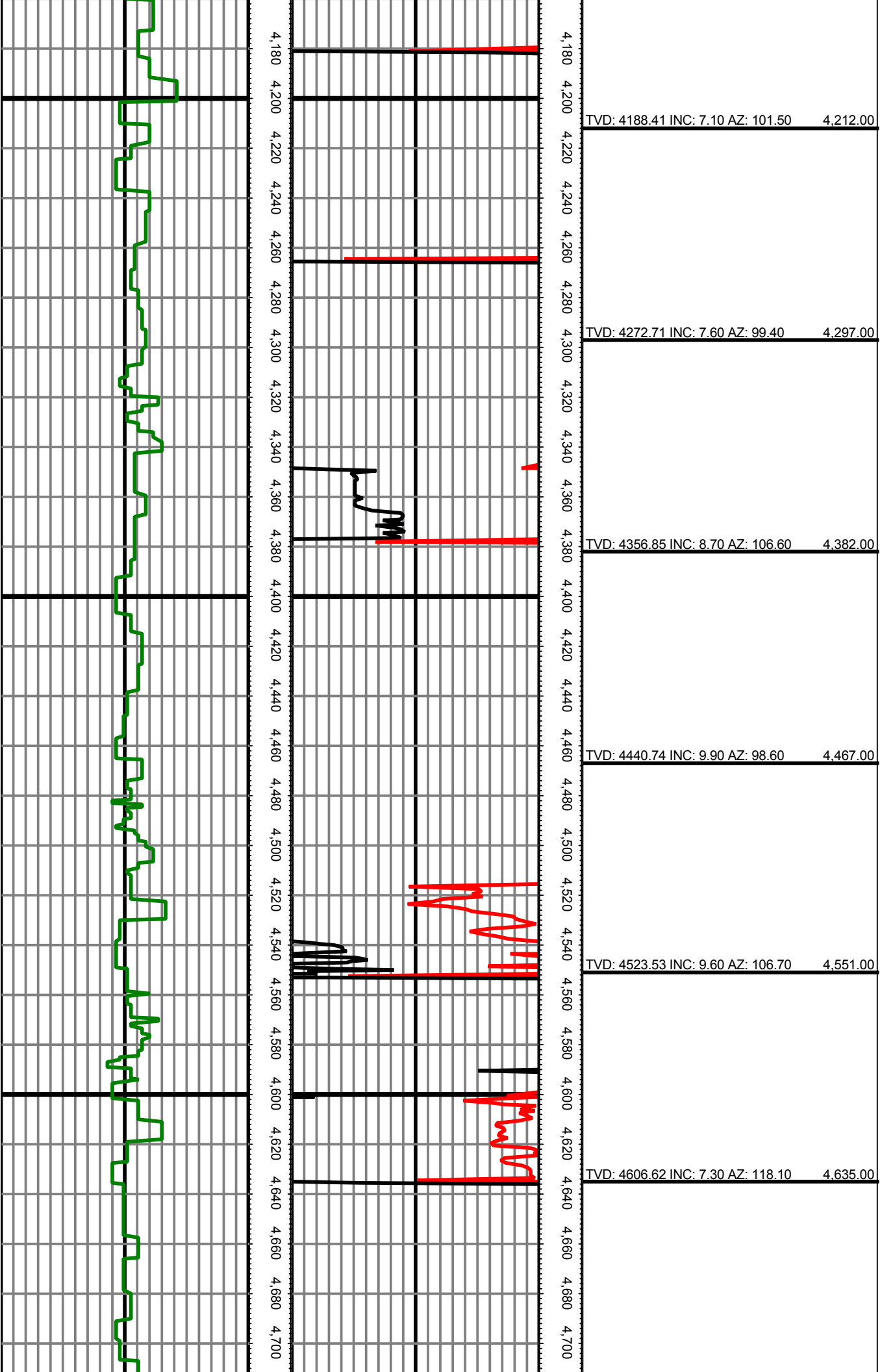


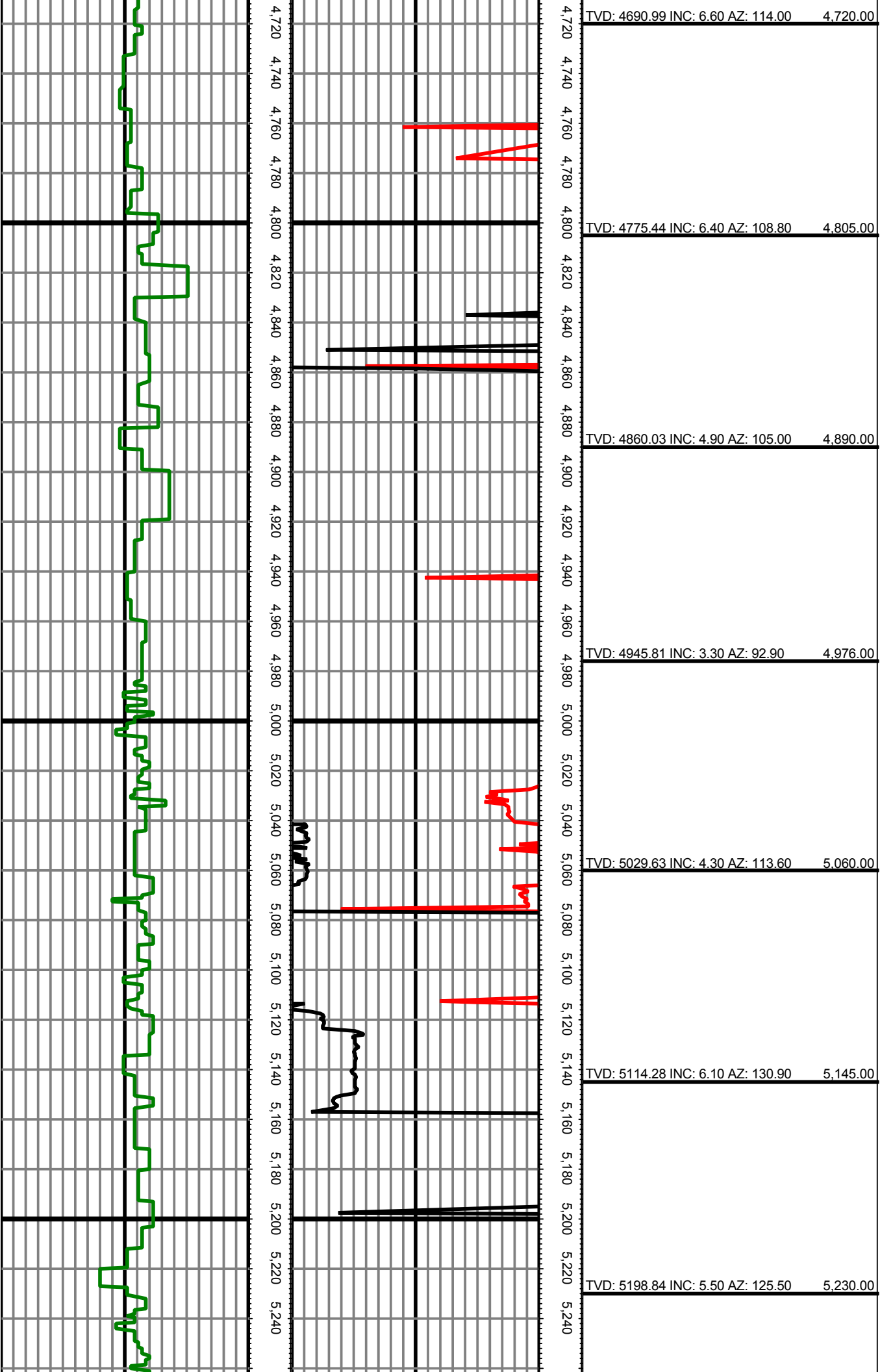




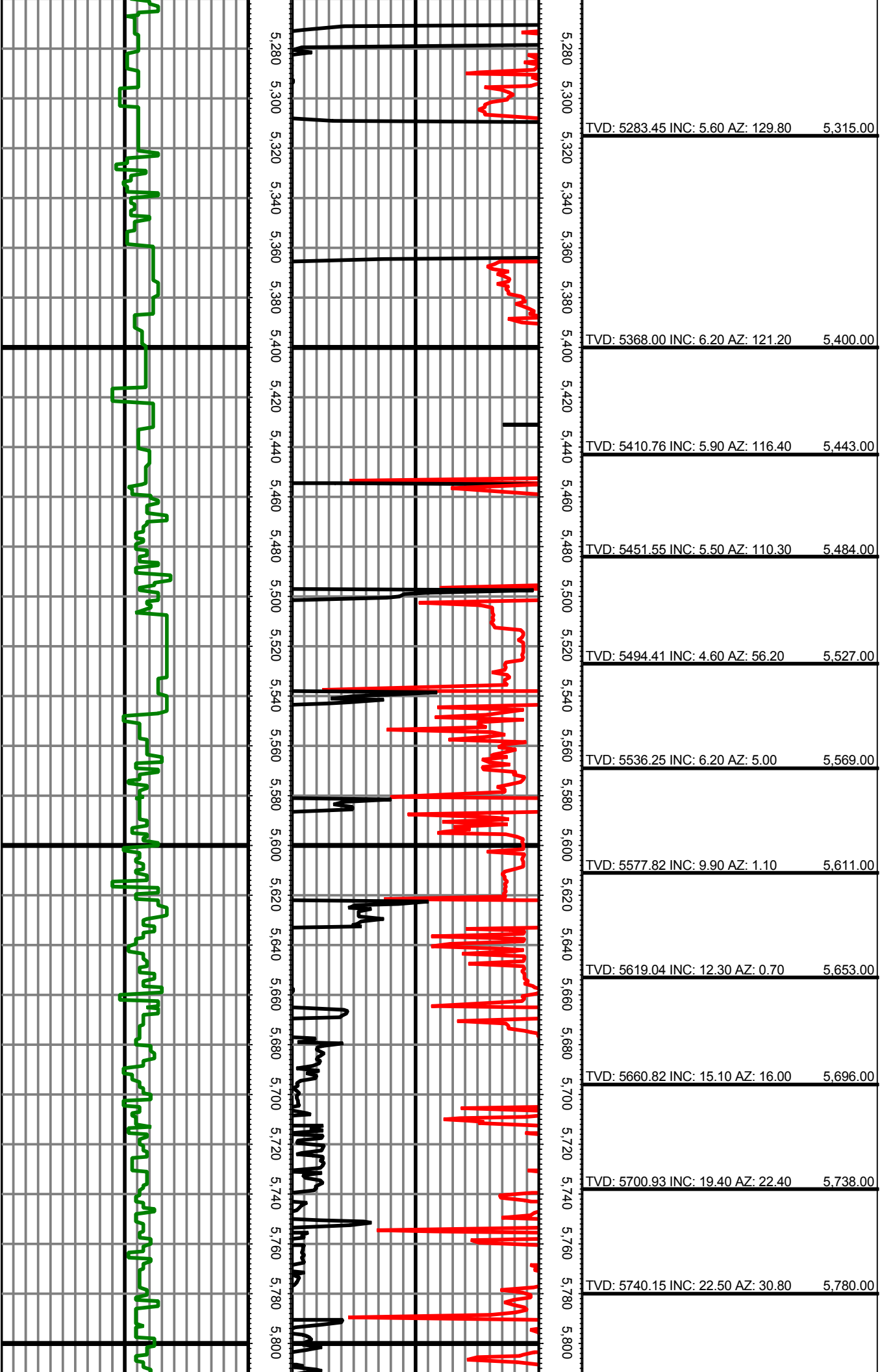


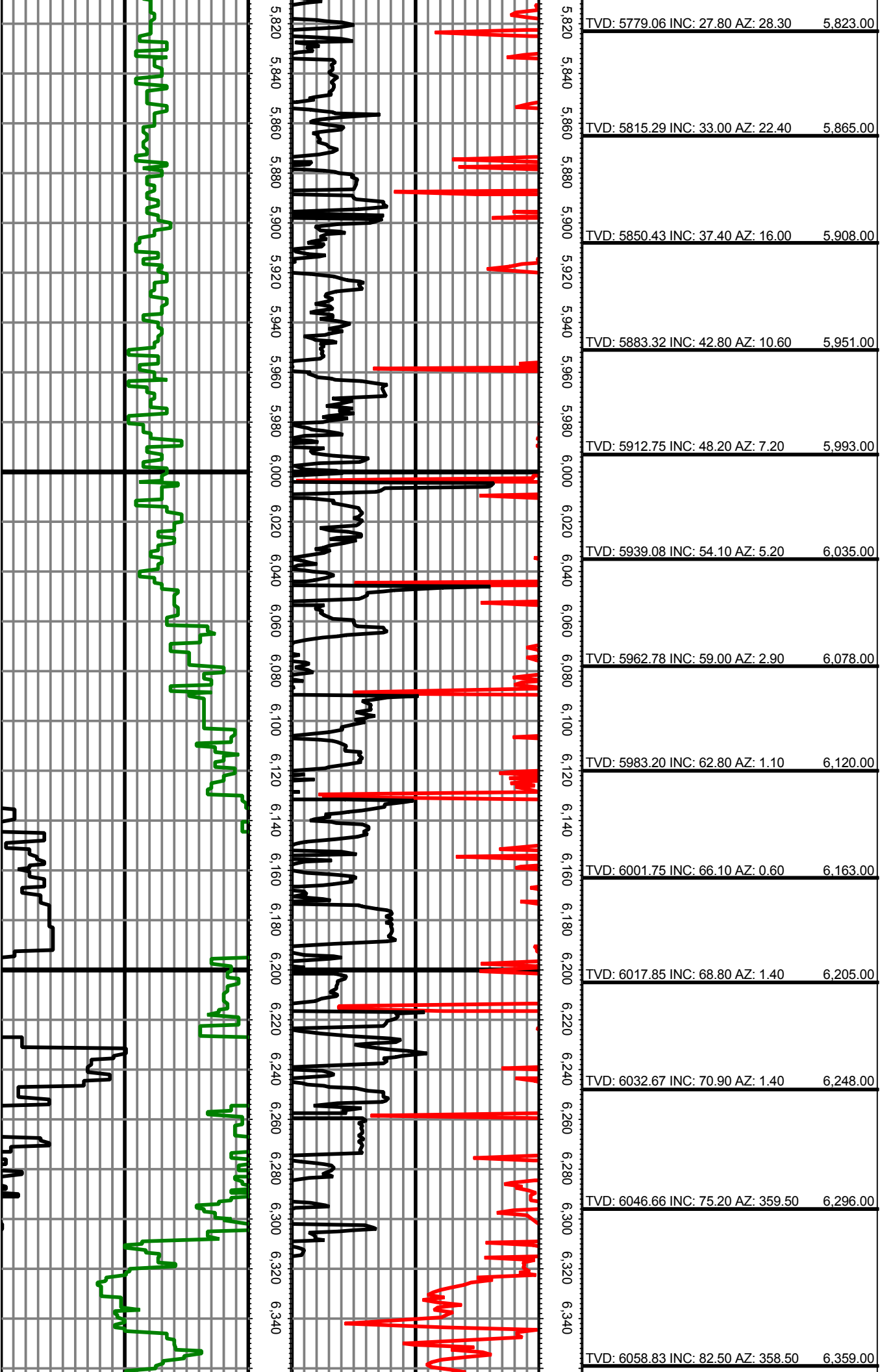


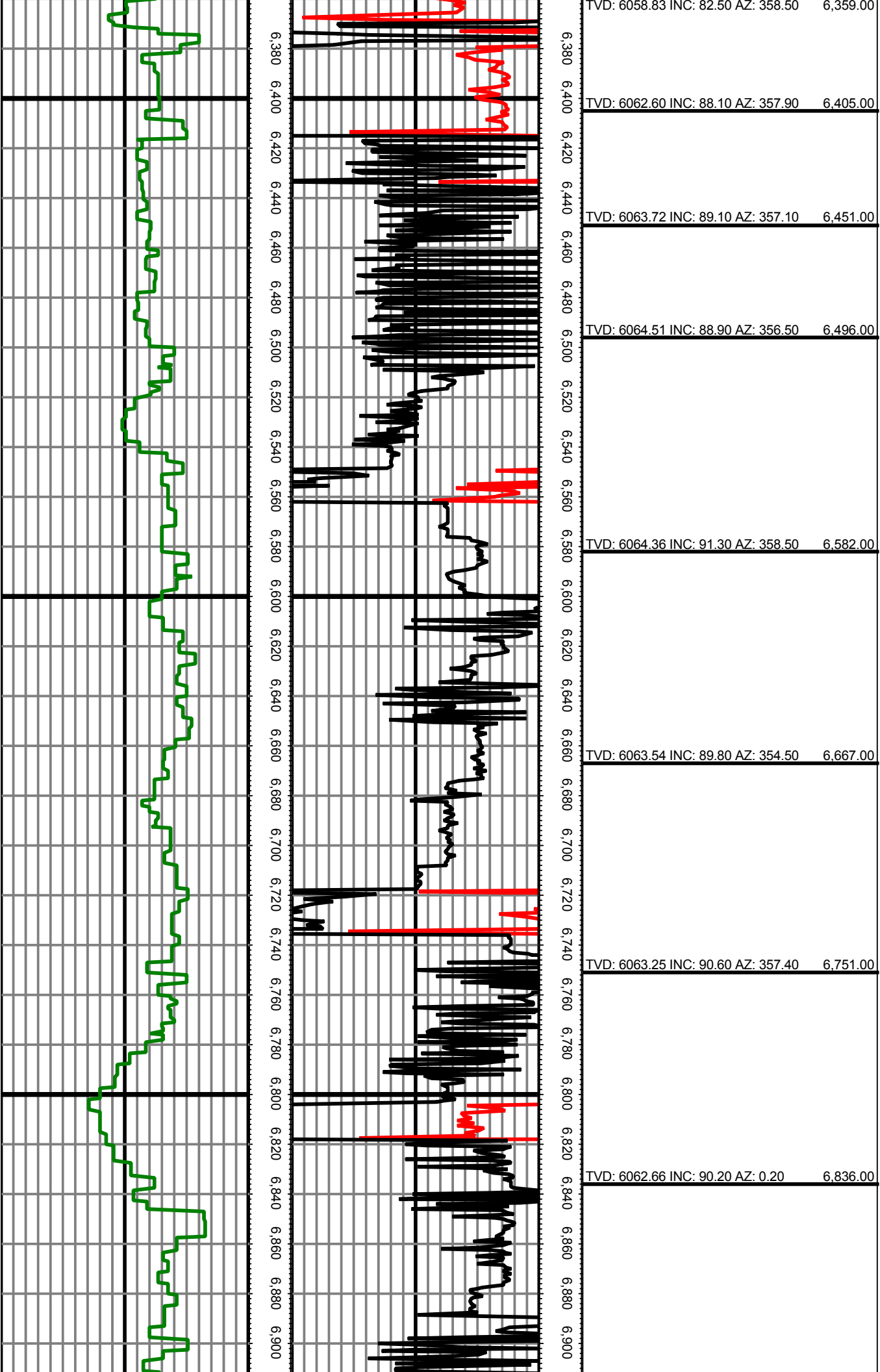


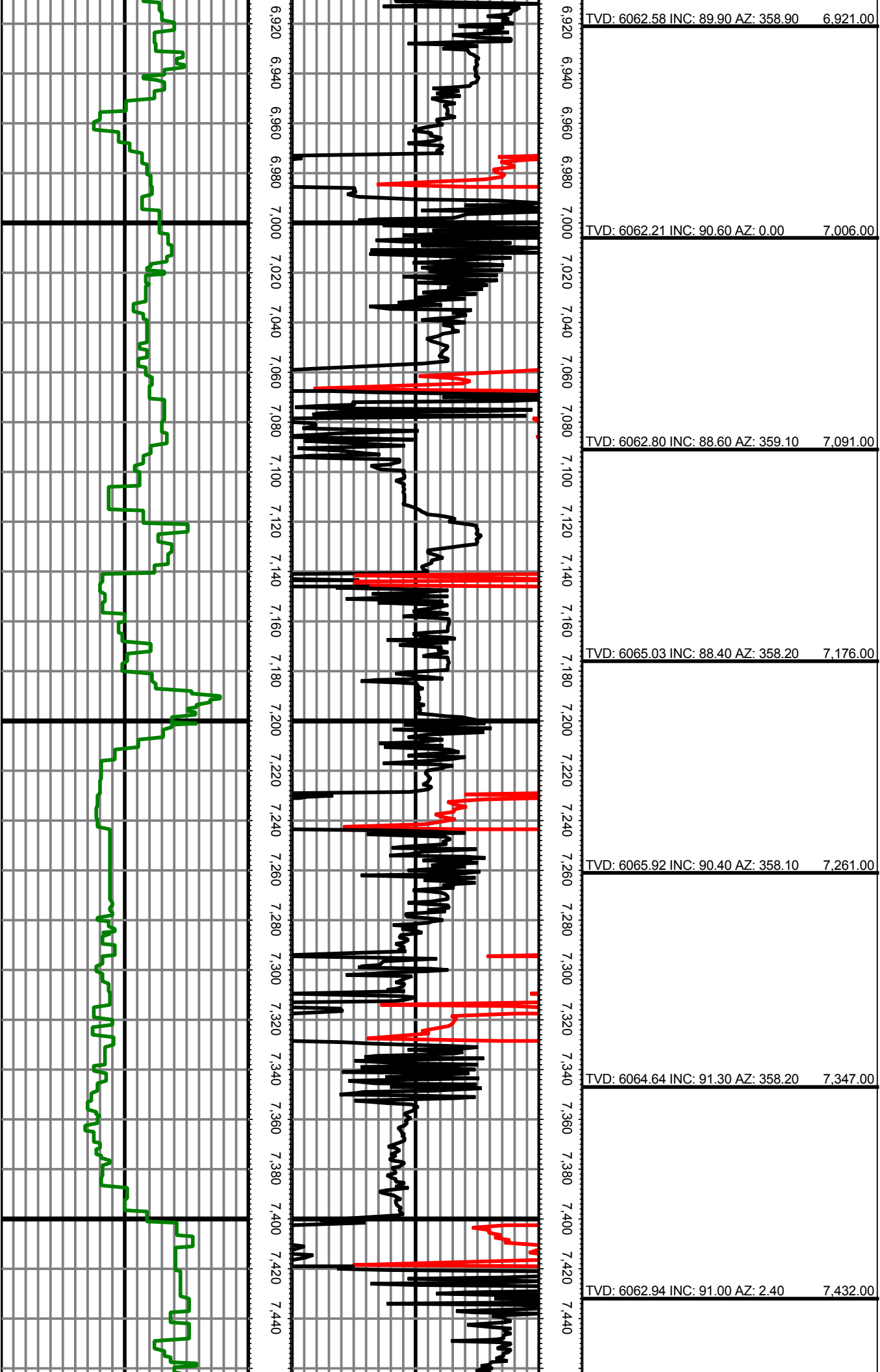












TVD: 6062.58 INC: 89.90 AZ: 358.90 6,921.00

TVD: 6062.21 INC: 90.60 AZ: 0.00 7,006.00

TVD: 6062.80 INC: 88.60 AZ: 359.10 7,091.00

TVD: 6065.03 INC: 88.40 AZ: 358.20 7,176.00

TVD: 6065.92 INC: 90.40 AZ: 358.10 7,261.00

TVD: 6064.64 INC: 91.30 AZ: 358.20 7,347.00

TVD: 6062.94 INC: 91.00 AZ: 2.40 7,432.00

